NOTES ON THE BIRDS OF THE UPPER BURMA HILLS

 $_{\rm BY}$

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PART II

(Continued from page 827 of Vol. XXXIII.)

XVIII.-Family IRENIDÆ

327. The Fairy Blue Bird. Irena puella puella.

An inhabitant of all these hills, but nowhere so common as I found it on the sea coast of Arakan. I think these birds collect in numbers where food is available and are not then at all shy.

XIX.-Family ORIOLIDÆ

328. The Indian Black-naped Oriole. Oriolus chinensis indicus.

329. The Burmese Black-naped Oriole. Oriolus chinensis tenuirostris.

Both subspecies *indicus* and *tenuirostris*, the Indian and Burmese Blacknaped Orioles appear to occur in the Kachin and Shan Hills. The *Fauna* says the latter was found 'Breeding by Hopwood at Monywa in Upper Burma between 3,000 and 4,000 ft.' Monywa, I may say, is in the plains, it should probably read Maymyo, but Hopwood recorded it from the North Chin Hills at 3,000 ft.

330. The Indian Black-headed Oriole. Oriolus xanthornus xanthornus.

Probably the commonest oriole in these hills. It breeds in May and June, the nests are difficult to get at as they are slung at the end of thin branches, but as the parent birds show great anxiety when the nest is approached, they are not difficult to find. I have generally heard them called by Burnans ' Hnet Wa' or yellow bird.

331. The Maroon Oriole. Oriolus trailli.

Occurs throughout these hills, a very shy bird.

XX.-Family EULABETIDÆ

332. The Indian Grackle. Eublabes javana intermedia.

To be found in all our hills, generally in large parties in heavy jungle. I only took this bird's nest in the Andamans, a different subspecies. I have always considered they give the parrot points as ' cage bird ' mimics.

333. Hodgson's Glossy Stare. Lamprocorax panayensis affinis.

Kachin and Shan Hills. Seems to have been missed by Harington in the former and I can only say I have seen it in the Shan Hills, but very rarely.

334. The Assam Spotted Stare. Saroglossa spiloptera assamensis.

Chin, Kachin and Shan Hills. I never came across it myself.

XXI.—Family STURNIDÆ

335. The Grey Starling. Spodiopsar cineraceus. Recorded by Harington from the plains of the Kachin Country. 336. The Grey-headed Myna. Sturnia malabarica, malabarica. Chin Hills.

337. The White-winged Myna. Sturnia malabarica nemoricola.

Kachin and Shan Hills, but more an inhabitant of the plains than hills.

338. The Gold-crested Myna. Ampeliceps coronatus.

As this bird is found in Eastern Bengal and Assam, it is probable it occurs also in these hills although apparently not recorded.

339. The Black-necked Myna. Gracupica nigricollis.

Kachin and Shan Hills. A familiar bird on any lawn. It is very interesting and amusing to watch the family following father and mother on the grass and being fed. The nest is the most untidy large collection of material one can imagine but I daresay a very snug nursery. Breeds in April and May laying 4 or 5 eggs.

340. Jerdon's Myna. Gracupica burmanica.

Chin, Kachin and Shan Hills, a provincial bird, and exceedingly common. It is surely more than one inch shorter than *nigricollis*.

A typical myna in all its habits.

341. Welis's Myna. Gracupica leucocephala annamensis.

A Northern Shan States subspecies. Seems rather questionable.

342. The Common Myna. Acridotheres tristis tristis.

Ubiquitous, but is a ' House ' bird.

343. The Indian Jungle Myna. Æthiopsør fuscus fuscus.

Chin Hills.

344. The Assam Jungle Myna. Æthiopsar grandis infuscatus.

Kachin and Shan Hills. Breeds in tree holes, as a rule, about middle of April, but its nesting in river banks has been recorded.

345. The Collared Myna. Æthiopsar albocinctus.

Commoner in the plains than the hills, according to Harington in writing of the birds round Bhamo (Kachin Hills) but in the Shan Hills it is quite a common bird; the nesting of this bird in river banks has been recorded, but tree hollows are generally used.

346. The Burmese Pied Myna. Sturnopastor capensis superciliaris.

Chin, Kachin and Shan Hills. Fairly common but commoner in the plains.

XXII.-Family PLOCEIDÆ

347. The Eastern Baya. Ploceus passerinus passerinus.

An inhabitant of the lower valleys in these hills. The naturalist in North Burma, measuring his specimens very carefully, might find he has acquired the other subspecies *infortunatus*. I have often seen its nest attached to the thatch roof eaves.

348. The Burmese Striated Weaver Bird. Ploceus manyar peguensis.

Distribution as in the case of the Eastern Baya, but the species does not seem to vary in size. The Burmese subspecies is distinguished by its richer and darker colouration.

349. The Northern Chestnut-bellied Munia. Munia atracapilla rubronigra.

Fairly common in suitable parts of the Chin, Kachin and Shan Hills. I cannot say I have noticed its partiality to nest in comparatively lofty trees; my experience is that the description of the nesting of the subspecies *atricapilia*, applies to our bird also and the nearer water the better in their opinion. June, July and August are the breeding months.

350. Hodgson's Munia. Uroloncha striata acuticauda.

Is our common 'white backed ' munia, but in the Eastern Shan Hills the subspecies *squamicollis* is found.

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351. The Burmese Spotted Munia. Uroloncha punctulata subundulata.

Probably the Chin Hills and Western Kachin Hills subspecies. I shot a specimen near Thunggyi and concluded this was the bird of this locality. This Munia breeds normally much higher up than the Chestnut-bellied Munia and the Rangoon birds frequently use street lamp-posts and under the eaves of houses as sites for the conglomeration of grass which serve them as nests. I think these birds build two nests to house the large family when they get too big to squeeze into the original nursery as they roost in the nests long after they are 'weaned.'

352. The Chinese Spotted Munia. Uroloncha punctulata topela.

Eastern Kachin and Shan Hills.

353. The Burmese Red Munia. Amandava flavidiventris.

Fairly common where they occur at all, i.e., in suitable grass plains. For a munia's, it is really rather a difficult nest to find and I have seldom seen one off the ground.

XXIII.-Family FRINGILLIDÆ

354. The Spotted-winged Grosbeak. Mycerobas melanoxanthus. Must be a rare bird in our hills as our elevations are not suitable.

355. Rippon's Bullfinch. Pyrrhula crythaca altera.

Shan States.

356. The Mount Victoria Bullfinch. Pyrrhula nipalensis victoriæ. S. Chin Hills.

357. The Yunnan White-browed Rose-Finch. Propasser thura femininus. Shan Hills.

358. Sharpe's Rose-Finch. Propasser ripponi. Shan Hills.

359. The Vinaceous Rose-Finch. Propasser vinaceus vinaceus. Kachin and Shan Hills.

360. The Common Indian Rose-Finch. Carpodacus erythrinus roseatus.

Probably the subspecies that visits us in winter in the eastern hills, Shan and Kachin. The birds go about in small flocks in cultivated and open country. I shot the species at the end of February at Maymyo, Shan Hills, east of Mandalay. They are not uncommon all over the Southern Shan States. Its occurrence is also recorded by Col. Rippon from Bhamo (Kachin Country).

361. The Yunnan Dark Rose-Finch. Procarduelis nipalensis intensicolor. Shan Hills, evidently rare.

362. The Yunnan Green-Finch. Hypacanthis spinoides ambiguus.

Cook obtained this bird at Kalaw where i also obtained it but have never seen it anywhere else. Both Cook and Grant also found it nesting. There was a small party of them which came down to feed on the grass seeds round residences and when I shot one I thought it was the Himalayau Greenfinch (*Carduelis caniceps*). Although it did not quite tally, it was very pleasing to hear of its identification later. Our finches are so rare and few that one rejoiced to see them about the place and it is very curious they do not seem to spread or increase in numbers.

363. The Yellow-throated Sparrow. Gymnoris xanthocollis xanthocollis.

Recorded from the Kalaw, S. Shan States by Sir S. M. Robinson. After the recording of this bird I continually put my glasses across likely looking sparrows in these parts, but was never decided I had seen a *Gymnoris* and never managed to bag one.

364. The Burmese House-Sparrow. Passer domesticus confucius.

Ubiquitous. The *Fauna* says it turns out the Tree Sparrow ; that is not my experience, perhaps in the province it is named after, it behaves better.

365. The Malay Tree-Sparrow. Passer montanus malaccensis.

All these Burma Hills. More common than the House-Sparrow.

366. The Cinnamon Tree-Sparrow. Passer rutilans cinnamomeus.

Considerably less common than the preceding species of sparrows.

367. The Yunnan Cinnamon Sparrow. Passer rutilans intensior. The subspecies occurring in the Shan States.

368. The Pegu House Sparrow. Passer flaveolus.

A Burmese bird entirely. It extends east of Burma. I do not think this bird is to be found in the Chin Hills, nor did Harington find it in the Kachin Hills, but it is very common in the Shan Hills up to 5,000 ft. A very handsome sparrow is the male bird. Breeds in any hole and quite commonly inside a bamboo which is being used as a hedge post, etc.

369. The Grey-headed Bunting. Emberiza fucata fucata.

370. The Indian Grey-headed Bunting. Emberiza fucata arcuata.

The subspecies *fucata* and *arcuata* occur in our hills as winter visitors.

371. The Little Bunting. Emberiza pusilla.

A winter visitor to these hills. I procured a specimen myself east of Mandalay at Maymyo. Shan Hills.

372. The Yunnan Meadow-Bunting. Emberiza cia yunnanensis.

Said to have occurred in the Shan States, but a doubtful record, as a hill, of 10,000 ft. as far as I am aware, does not exist in Shan land.

373. The Yellow-breasted Bunting. Emberiza aureola.

Rather a late winter migrant to the Shan States. It stays till the end of April when the male bird has begun to assume its breeding plumage and becomes a very conspicuous individual.

374. The Chestnut Bunting. Emberiza rutila.

Chin, Kachin and Shan Hills as a winter visitor.

375. The Crested Bunting. Melophus melanicterus.

A very universal bird in all our hills and our one solitaty bunting to breed. Habits and nidification very nicely described in the *Fauna*, but I have noted what I called its short plaintive song from the top of a bush in the breeding season.

XXIV .- Family HIRUNDINIDÆ

376. The Eastern Sand-Martin. Riparia riparia ijimæ. Perhaps this bird does not occur in our hills.

377. The Indian Sand-Martin. Riparia paludicola chinensis.

I am rather confused, but I always thought this was our Sand-Martin throughout Burma. Begins to breed in April in colonies which perhaps sometimes consist of only 2 or 3 nests.

378. The Crag-Martin. Ptyonoprogne rupestris.

There is a small Crag-Martin which inhabits the Taunggyi Crags, Shan Hills about 5,000 ft. I failed to get a specimen through bad shooting with a 23 hore so I am not sure which species it is. It always hawked for insects round the rocky parts and I never met with it away from them. There were only a few, but I think were permanent residents.

379. The Eastern Swallow. Hirundo rustica gutturalis.

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380. Tytler's Swallow. Hirundo rustica tytleri.

Both winter visitors to our hills. Col. Rippon seems to have recorded the subspecies *rustica* from round Bhamo, Kachin Hills.

381. The Indian Wire-tailed Swallow. Hirundo smithii filifera.

A common bird in our hills. Begins to breed at end of March and goes on throughout the rains.

382. The Chinese Striated Swallow. Hirundo daurica striolata.

A permanent resident in the Shan Hills at any rate and probably also in the Chin and Kachin Hills.

It breeds in the Shan Hills making its retort-shaped mud nests, against the ceiling of rooms and verandahs of buildings and up against the roofs of caves in the limestone rocks. Sometimes just the one nest, but often in the case of the caves a few pairs may be found nesting together. If the nest is destroyed, as sometimes it is a nuisance, they often build again in the same place. Dry grass is often used as lining. I have never seen any eggs with spots, five is the usual number, and nesting begins at the end of April.

383. Sykes's Striated Swallow. Hirundo daurica erythropygia.

Mackenzie records this subspecies from the North Chin Hills.

XXV.-Family MOTACILLDÆ

384. The Indian White Wagtail. Motacilla alba dukhunensis. Recorded by Rippon in the Kachin Hills.

385. The Masked Wagtail. Motacilla alba personata.

I have shot one in the Shan Hills, or rather I pounced on a specimen shot by an urchin with a pellet bow.

386. Swinhoe's White Wagtail. Motacilla alba baicalensis. Is also a Shan Hills bird.

387. The Streak-eyed Wagtail. Motacilla alba ocularis.

Probably Shan Hills, all of course being winter visitors only.

388. Hodgson's Pied Wagtail. Motacilla lugubris alboide.

389. The White-faced Wagtail. Motacilla lugubris leucopsis. Both recorded as wintering in Burma as a whole.

390. The Eastern Grey Wagtail. Motacilla cinerea caspica. Another winter visitor.

391. The Grey-headed Wagtail. Motacilla flava thunbergi.

Probably a winter visitor to all three hills. Recorded by Harington in the Kachin Country.

392. Hodgson's Yellow-headed Wagtail. Motacilla citreola calcarata.

Winter visitor. Recorded by Harington as occurring in the Kachin Country.

393. The Forest Wagtail. Dendronanthus indicus. Occurs sparingly throughout our hills. A lonely bird.

394. The Indian Tree-Pipit. Authus hodgsoni hodgsoni.

395. The Yunnan Tree-Pipit. Anthus hodgsoni yunnanensis.

Both winter visitors to the Burmese Hills, the latter in the East. Small parties of 8 or 10 birds feed on the ground and when disturbed, fly up into trees; partial to well watered country.

396. The Brown Rock Pipit. Anthus sordidus jerdoni.

Winters in the Chin, Kachin and Shan Hills.

397. Richard's Pipit. Anthus richardi richardi.

398. Blyth's Pipit. Anthus richardi godlewskii.

Apparently both subspecies *richardi* and *godlewskii* occur in the Burma Hills, but evidently, by their description of them in the *Fauna*, the two may perhaps turn out to be one subspecies. I found the bird breeding about 3,000 ft., in the Shan Hills, but only found young.

399. The Indian Pipit. Anthus richardi rufulus.

A very common bird which inhabits nearly every open grass space, and breeds where it lives. I found the nest of this bird very often contained the egg of *Cuculus canorus*.

400. The Red-throated Pipit. Anthus cervinus.

Occurs throughout our hills.

401. The Japanese Water-Pipit. Anthus spinoletta japonicus.

Recorded as nesting on Mt. Victoria, S. Chin Hills.

XXVI.-Family ALAUDIDÆ

402. The Small Indian Sky-Lark. Alauda gulgula gulgula.

403. The Small Chinese Sky-Lark. Alauda gulgula cœlivox.

The two subspecies, gulgula and calivox, occur in our hills. I took some nests at about 8,000 ft. in the Chin Hills and apparently some collector obtained nests and eggs on Mt. Victoria and these eggs were identified as belonging to the latter subspecies; so probably mine from further north belong to calivox also. The nests were typical larks' nests taken in April, in each case a clutch of three only, rather long ovals and one clutch has a very distinct ring of marking round the big end.

404. The Rufous Short-toed Lark. Calandrella brachydactyla dukhunensis.

Probably occurs in our hills.

405. The Ganges Sand-Lark. Alaudula raytal raytal.

May occur on the Irrawaddy River in the Kachin Country, but is not a hill bird.

406. The Siam Singing Bush-Lark. Mirafra javanica williamsoni.

I found this bird breeding in April, in the Shan Hills at about 3,000 ft. in grassy plains. Nest very similar to *Anthus. r. rufulus*, the bird being shot and skin identified for me in England : sings very like our English Lark soaring in the air.

407. The Burmese Bush-Lark. Mirafra assamica microptera.

A very common bird in the north of Burma in the dry zone and to be found sparingly at low elevations in the hills. Although a bird of dry and arid land in Burma, it has the same habit as the Bengal Bush Lark in 'sailing down on outstretched wings.'

XXVII.-Family ZOSTEROPIDÆ

408. The Northern White-Eye. Zosterops palpebrosa elwesi. North Shan Hills, and Kachin Hills.

409. The Cachar White-Eye. Zosterops palpebrosa cacharensis. Chin Hills.

410. The Pegu White-Eye. Zosterops simplex peguensis. S. Shan Hills.

411. The Siamese White-Eye. Zosterops siamensis. Chin Hills.

412. The Karen White-Eye. Zosterops aureiventris mesoxantha.

Recorded by Rippon as occurring in Southern Shan Hills north of the Karen Country.

I am probably only intimately acquainted with Z. simplex peguensis and its nests and eggs; a beautiful nest and a beautiful egg, but oh! how one wishes birds like this species could be more standardised in colouration! One description of their habits, etc. would do for all of them.

XXVIII.—Family CHALCOPARIIDÆ

413. The Malayan Ruby-Cheek. Chalcoparia singalensis singalensis.

Said to occur in the foothills of all Burmese hills. I have only come across it in the plains and mostly in Lower Burma.

XXIX.-Family NECTARINIIDÆ

414. The Indian Vellow-backed Sunbird. Æthopyga síparaja seheriæ.

Harington records that cara, the Tennasserim Yellow-backed Sunbird was recorded by Salvadori to occur in the Kachin Country but this is seemingly a mistake. The two sub-species, scheriæ (the Himalayan Yellow-backed Sunbird) and one called andersoni (Oates) are now not separated and the bird occurs in the Kachin Hills and probably also in the Chin Hills. In the Shan Hills the subspecies has been named viridicauda, the Yunnan Yellow-backed Sunbird, but the separation of this bird from $\mathcal{Z}s$, scheriæ is doubtful. Osmaston took the eggs of this bird at Maymyo in 1915 and in 1923 I went to live in a house at that place where a pair had evidently used for sometime a creeper climbing over a sweeper's staircase to build in and the pair did so all the three years I was there. I also found another nest in the jungle which was hanging from a bracken frond. The nest is like Leptocoma a. intermedia in shape but differs in material used which is mostly grass. My eggs are white with dark spots at the larger end.

415. Rippon's Fire-tailed Sunbird. Æthopyga ignicaud a flavescens.

This pretty sunbird was very plentiful on Mt. Victoria, at about 8,000 ft. but I could not find its nest. Kachin Hills.

416. The Yunnan Fire-tailed Sunbird. Æthopyga ignicauda exultans. Eastern Shan Hills.

417. Mrs. Gould's Sunbird. Æthopyga gouldiæ gouldiæ. Chin Hills; high elevations.

418. The Manipur Yellow-backed Sunbird. Æthopyga gouldiæ isolata. Chin Hills : at lower elevations.

419. Dabry's Sunbird. Æthopyga dabryi.

Seems to be the Shan Hills subspecies; nest found by Sir S. Robinson (*B.N.H.S. Journal, Vol. XXIX*, p. 1052). Harington also records it from round Bhamo, East Kachin Hills.

420. The Black-breasted Sunbird. Æthopyga saturata saturata,

Chin, Kachin and Shan Hills. I have, I believe, seen them in the latter part of the country almost as far east as one can go before reaching China.

421. Walden's Yellow-backed Sunbird. Æthopyga sanguinipecta sanguinipecta. A bird of the Kachin and Shan Hills.

422. The Nepal Yellow-backed Sunbird. Æthopyga nipalensis nipalensis. Kachin and Shan Hills.

423. Rippon's Yellow-backed Sunbird. Æthopyga nipalensis victoriæ.

Mt. Victoria, S. Chin Hills.

424. The Burmese Purple Sunbird. Leptocoma asiatica intermedia.

A common bird in all these hills. A nest in my compound was hung from a rose bush. After one brood had been reared, the bird laid again and hatched

out, but the nest could not stand the strain of a second brood and it fell, to my surprise; as far as I know, no additions were made to the nest after the 1st brood had been reared. As a rule the nest, when hanging, is seldom more than a foot or two off the ground.

425. Van Hasselt's Sunbird. Leptocoma brasiliana.

I think a bird of the plains only. I never saw it in the Hills.

426. The Burmese Yellow-breasted Sunbird. Leptocoma flammaxillaris flammaxillaris.

Shan Hills, at low elevation, probably 3,000 ft. I can find no record of this bird in the Kachin and Chin Hills.

427. The Indian Streake1 Spider-Hunter. Arachnothera magna magna.

Recorded by Mackenzie in the North Chin Hills, and Harington from the Kachin Hills. I found this bird very local in the Shan Hills and as I did not actually shoot one, it may have been the subspecies *aurata*, the Pegu Streaked Spider-Hunter, in the South. It is not common by any means and I never discovered its nest.

428. The Little Spider-Hunter. Arachnothera longirostra longirostra. Rippon recorded this bird in the Kachin Hills.

XXX .- Family DICAEMÆ

429. The Indian Scarlet-backed Flower-pecker. Dicæum cruentatum cruentatum.

430. The Burmese Scarlet-backed Flower-pecker. Dicæum cruentatum ignitum.

The Indian subspecies comes down as far as the North Chin Hills and its eastern and southern limits are unknown. The Burmese subspecies *ignitum* taking its place eventually.

431. The Burmese Yellow-vented Flower-pecker. Dicæum chrysorrheum chrysochlore.

Harington records it from the Kachin Hills, so it doubtless extends through the Shan Hills.

432. The Fire-breasted Flower-pecker. Dicæum ignipectum ignipectum.

Chin, Kachin and Shan Hills. A nest I took in May contained two eggs and was built at the top of a small tree on a rocky hillside 'Launggyi crags where it was plentiful.

433. Tickell's Flower-pecker. Dicæum erythrorhynchum erythrorhynchum.

Probably all these hills, but recorded apparently for certain in the Shan Hills.

434. Hume's Flower-pecker. Piprisoma squalidum modestum. All our hills,

XXXI.-Family PITTIDÆ

435. Phayre's Pitta. Anthocincla phayrei. Shan Hills.

436. The Blue-naped Pitta. Pitta nepalensis. Chin Hills.

437. The Fulvous Pitta. Pitta oatesi.

S. Shan Hills.

438. The Blue Pitta. Pitta cyanea cyanea. All these hills.

439. The Lesser Blue-winged Pitta. Pitta moluccensis.

I saw a Pitta once on the Taunggyi crag which I took to be this, evidently on migration, as they breed in numbers not far from Rangoon.

440. The Green-breasted Pitta. Pitta cucultata cucultata. Apparently occurs in all our hills.

XXXII.-Family EURYLAIMIDÆ

I have found it difficult from my own knowledge to add to the notes given in the *Fauna* of the habits of the birds dealt with, but in the case of the Broadbills, I could not anyhow have added to them as they are a race of birds which have studiously avoided me and I have never found a nest of any of this most interesting group.

441. Gould's Broadbill. Serilophus lunatus lunatus.

442. Hodgson's Broadbill. Serilophus rubropygius.

The former recorded by Mackenzie and Hopwood from the N. Chin Hills, but it is evidently a commoner bird south of any of our bills. The same remarks apply equally to *rubropygius*—Hodgson's Broadbill.

443. The Long-tailed Broadbill. Psarisomus dalhousiæ.

This seems from all accounts the commonest of our hill Broadbills. As an instance of fearlessness, a friend wrote me from Bhamo to say they suddenly appeared in numbers round the courts and, uttering their whistling call, entered rooms, almost interfering with the ends of justice.

XXXIII.-Family PICIDÆ

444. The Little Scaly-bellied Green Woodpecker. Picus vittatus myrmecophaneus. Chin Hills.

445. The Burmese Scaly-bellied Woodpecker. Picus vittatus viridanus.

446. The Siam Scaly-bellied Woodpecker. Picus vittatus eisenhoferi.

The subspecies of the Kachin and Shan Hills. The subspecies *eisenhoferi* probably straggles into the extreme East.

447. The Burmese Black-naped Green Woodpecker. Picus canus hessei.

Apparently in all these hills. Nest hole often near the ground. In one case I came across, the old bird had been killed by a rat or some similar animal which could just reach the bird to kill and eat a part of it, but not pull it out of the hole.

448. The Eastern Himalayan Small Yellow-naped Woodpecker. Picus chlorolophus chlorolophus.

Chin and Kachin Hills and the Northern Shan Hills.

449. The Burmese Small Yellow-naped Woodpecker, Picus chlorolophus chlorolophoides. The more southerly subspecies.

450. The Large Yellow-naped Wood-pecker. Chrysophlegma flavinucha flavinucha. All the Burmese Hills.

451. The Pale-headed Woodpecker. Gecinulus grantia. Chin Hills.

452. The Southern Pale-headed Woodpecker. Gecinulus viridis. Shan Hills,

453. The Eastern Rufous-bellied Woodpecker. Hypopicus hyperythus hyperythus. Chin and Kachin Hills.

454. The Yunan Red-crowned Pied Woodpecker. Dryobates cabinisi stressemani. Chin, Kachin and Shan Hills a bird evidently of the higher elevations.

455. The Kansu Red-breasted Woodpecker. Dryobates cathparius pernyi. Shan States.

456. The Stripe-breasted Pied Woodpecker. Dryobates atratus.

All Burma Hills. At the end of March, I found it nesting on the Taunggyi crag, Shan Hills, about 5,000 ft., in a rotten stump about twelve feet from the ground.

457. The Northern Yellow-fronted Pied Woodpecker. Leiopicus mahrattensis blanfordi.

The Burma Hills generally.

458. The Yunnan Pigmy Woodpecker. Yungipicus hardwickii omissus. Kachin Hills. (Harington).

459. The Burmese Pigmy Woodpecker. Yungipicus hardwickii canicapillus.

The rest of Burma and the Shan Hills. Two nests I found in the Shan States were in small (thin) rotten branches not very high up—one twelve feet and the other six feet. One contained a fully-fledged young bird (April). The other nest was opened out when I visited it a second time, but this was early May and the young birds may have flown although it did not appear so.

460. The Red-eared Bay Woodpecker. Blythipicus pyrrhotis pyrrhotis. All our hills.

461. Northern Rufous Woodpecker. Micropternus brachyurus phaioceps.

This woodpecker excavates holes in ants' nests for its nest. *Phaioceps* is the subspecies of Burma.

462. The Burmese Golden-backed Three-toed Woodpecker. Dinopicus javanensis intermedia.

All these Burma Hills. I see a note of young bird observed in the middle of April in the Shan States. This nest was about 5 ft. off the ground, but in a big trunk quite 2 ft. in diameter.

463. The Himalayan Golden-backed Three-toed Woodpecker. Dinopicus shorii. Chin Hills, and probably West Kachin Hills.

464. Tickell's Golden-backed Woodpecker. Chrysocolaptes guttacristatus guttacristatus. A common woodpecker of all these hills.

465. The Indian Great Slaty Woodpecker. Mulleripicus pulverulentus harterti.

Not a common bird by any means in our hills. I can record it in the Shan Hills.

466. The Burmese Great Black Woodpecker. Thriponax javanensis feddeni.

Kachin Hills (Harington). It occurred in the Shan Hills in suitable jungle sparingly. I never found the nest, but the *Fauna* records Cook taking them at Maymyo, 40 miles east of Mandalay, early in Februry. I cannot recognize the place where Grant is stated in the *Fauna* to have taken another nest.

467. The Malay Speckled Piculet. Picumnus innominatus malayorum.

Harington records this bird in the Kachin Hills and the *Fauna* says the Southern Shan States; so presumably it might be found anywhere in these hills.

468. The Rufous Piculet. Sasia ochracea ochracea.

In the Kachin Hills.

469. Cachar Rufous Piculet. Sasia ochracea querulivox. In the Chin Hills.

470. The Burmese Rufous Piculet. Sasia ochracea reichenowi.

Probably in the Shan Hills.

471. The Japanese Wryneck. lynx torquilla japonica.

Winter visitor to our hills. Have caught it more than once in the house probably coming in after insects and not being able to find its way out.

XXXIV.-Family CAPITONIDÆ

472. The Great Chinese Barbet. Megalaima virens virens. In the Shan States and probably the Kachin Hills.

473. The Assam Great Barbet. Megalaima virens magnifica.

In the Chin Hills. A nest I found in the Shan Hills had not been excavated by the bird, normally an early breeder and fairly common all over the Burma Hills.

474. The Assam Lineated Barbet. Thereiceryx lineatus hodgsoni.

In the Chin Hills and N. Burma.

475. The Burmese Lineated Barbet. Thereiceryx lineatus intermedius.

The Burmese subspecies in the Shan Hills south. 'Po Toke' is one of the Burmese names for this bird resembling the call. It nests, like all barbets, in rotten trees. In the plains I took the nest at the end of February, and in the hills at beginning of May, but I do not think that this substantiates a claim that the plain birds breed earlier than the Hill ones.

476. The Blue-throated Barbet. Cyanops asiatica asiatica.

477. Davison's Blue-throated Barbet. Cyanops asiatica davisoni.

The subspecies *asialica* in the North and Western Hills, and *davisoni* in the S. Eastern Hills. Probably the subspecies are a bit mixed in the middle of the Shan States, anyway there seems to be a mistake in the *Fauna* in the description of the band across the vertex of *davisoni*. Nests end of April.

478. The Indian Blue-eared Barbet. Cyanops duvaucelli cyanotis.

Seems to have been missed by Mackenzie, Harington and even Rippon although it probably occurs in North Burma.

479. The Thick-billed Barbet. Cyanops robustirostris.

May also occur in our Northern Hills.

480. The Golden-throated Barbet. Cyanops franklinii franklinii.

481. Ramsay's Golden-throated Barbet. Cyanops franklini ramsayi.

Both appear to inhabit our hills, the latter in the South Shan Hills. Harington records this species as plentiful in the Kachin Hills, and Mackenzie took eggs in the North Chin Hills; early May. Robinson obtained eggs of *ramsayi* in South Shan Hills; end of April.

482. The Burmese Crimson-breasted Barbet. Xantholæma hæmacephala indica.

The Fauna the description of the subspecies X. h. hæmacephala, if it occurs in India, is omitted. In the key *indica* has a culmen 15 mm. or under, while in the description under the species the length of the culmen is recorded 17 to 18 mm. No doubt the mistake if any will be corrected.

Occurs in all our hills, an early breeder generally. I found nests in thin rotten branches of trees, often so thin you would think a bird could hardly turn round in the hole. Quite common enough in Burma I may add !

All Barbets seem to take some time to make their nest cavities.

XXXV.—Family CUCULIDÆ

483. The Khasia Hills Cuckoo. Cuculus canorus bakeri.

The cuckoo of Burma. Begins to call the second week in March but does not seem to lay till the end of April. The eggs taken by me in the Shan Hills are nearly all of one colour rather like 'Suya', but I have also taken blue eggs, and although I have frequently taken them from Anthus r. rufulus, the eggs were always of the same type. Hopwood found this cuckoo's egg in nest of *M. palustris* but Saxicola caprata seemed the most favoured foster parents.

484. The Himalayan Cuckoo. Cuculus optatus.

I think I obtained the egg of this bird in a nest of *Phylloscopus* in the Chin Hills. Mackenzie records its finding in nests of *A. davisoni*.

485. The Small Cuckoo. Cuculus poliocephalus poliocephalus.

Probably occurs in the Northern Hills.

486. The Indian Cuckoo. Cuculus micropterus micropterus.

The 'Youkhpa, Quay, Kor' of the Burmese. I took an egg out of a nest of *S. caprata* in the Shan Hills, where this cuckoo is however rather uncommon, especially compared to the Chin Hills and the plains of Burma. The egg was blue with reddish spots which I have always considered the egg of this bird.

487. The Large Hawk-Cuckoo. Hierococcyx sparveroides.

In the Shan Hills I took an egg of this bird, I believe, from a nest of *Garrulax 1. belangeri*; middle of May: Hopwood and Mackenzie obtained several in the N. Chin Hills, *P. maclellandi* being the commonest fosterer. Mackenzie also records the finding of the eggs.

488. The Common Hawk-Cuckoo. Hierococcyx varius.

Eggs were taken by Mackenzie on two occasions in the North Chin Hills. The fosterers were *Ianthocincla cineracca*.

489. Hodgson's Hawk-Cuckoo. Hierococcyx fugax nisicolor.

Recorded from the Chin and Shan Hills and it must also occur in the Kachin Hills.

490. The Burmese Plaintive Cuckoo. Cacomantis merulinus querulus.

A very common Burma bird but I do not remember it in the Chin Hills. In the Shan Hills it was found laying in nests of *Franklinia* and *Cisticola*. May and early June.

491. The Indian Banded Bay Cuckoo. Penthoceryx sonneratii sonneratii.

Occurs in Burma but has been recorded by no one lately.

492. The Violet Cuckoo. Chalcites xanthorhynchus.

I have an egg from a nest of *Franklinia* which must belong to either this or the next species.

493. The Emerald Cuckoo. Chalcites maculatus maculatus.

Taken in the Shan Hills. Harington records the latter bird in the Kachin Hills.

494. The Indian Drongo Cuckoo. Surniculus lugubris dicruroides.

Except the recording of it in all these hills little seems to be known of its nidification, although Mackenzie considered he found an egg in a drongo's nest in the N. Chin Hills. I remember shooting a fully-fledged, young bird near Rangoon. The call is easily recognizable when once heard.

495. The Pied Crested Cuckoo. Clamator jacobinus jacobinus.

Occurring in all these hills, but in my opinion very few in numbers compared to the plains.

496. The Red-winged Crested Cuckoo. Clamator coromandus.

Common in all our hills. The eggs have been frequently taken. I have a clutch of 5 with 4 of *G. moniliger* the foster birds, taken at Maymyo, east of Mandalay in the Shan Hills. The bird seems a more frequent night caller than other cuckoos and it has a call different to its usual harsh screaming.

497. The Malay Koel. Eudynamis scolopaceus malayana.

Found in all three hills.

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498. The Large Himalayan Green-billed Malkoha. Rhopodytes tristis.

A fairly common bird in all these hills, especially the Shan Hills, where at about 3,000 ft. elevation it thrives and nests and in any beat for jungle fowl, this bird is sure to appear.

I notice the subspecies *longicaudatus* is mentioned in the *Fauna* as occurring in the Southern Shan Hills, but I have never had the opportunity of examining skins.

493. Hume's Crow Pheasant. Centropus sinensis intermedius.

Our Burma hill bird is presumably the subspecies *intermedius*. It differs from the Indian bird in size only, the Burmese bird being a little smaller all over except its length of tail.

500. The Lesser Coucal or Crow Pheasant. Centropus bengalensis bengalensis.

In our hills, it appears to be an inhabitant mostly of the long thatch grass wherein it nests. It seems, if possible, a more feeble flier than its larger brother. I agree 3,000 ft. in the hills is its usual elevation. A rains breeder.

XXXVI.-Family PSITTACIDÆ

501. The Large Burmese Paroquet. Psittacula eupatria indoburmanica.

Must be included in our hill birds, but it keeps to very low elevations as does.

502. The Eastern Rose-ringed Paroquet. Psittacula krameri borealis.

503. The Eastern Blossom-headed Paroquet. Psittacula cyanocephala bengalensis.

I cannot say whether this bird occurs in the eastern hills, i.e. the Chin Hills of Burma. I found it breeding in the Shan Hills early in March and actually shot a nesting bird. Elevation 3,000 ft. Harington records its occurrence in the Kachin Hills.

504. The Burmese Slaty-headed Paroquet. Psittacula schisticeps finschi.

Recorded by Mackenzie in the N. Chin Hills and in the Southern Shan Hills (Kalaw) by Cooke, it also occurs, I believe, near Maymyo further north in these hills and probably in the Kachin Hills also.

505. The Indian Red-breasted Paroquet. Psittacula alexandri fasciatus.

Not so common in these hills as one would expect as it is common enough in the plains of Burma.

506. The Indian Loriquet. Coryllis vernalis vernalis.

One seldom sees this little bird in the hills of Burma, at least I have personally found it rare and it is only on occasions that one recognizes its familiar call when flying swiftly overhead. In the Andamans one found them breeding very early; young birds in January, but I have no experience of their breeding in these hills.

XXXVII.--Family CORACIIDÆ

507. The Burmese Roller. Coracias bengalensis affinis.

My experience is that this Burmese subspecies breeds at end of March and beginning of April all over Burma, often, if undisturbed, using the same treehollow—year after year. The wonderful flight contortions of this bird are truly recorded.

508. The Broad-billed Roller. Eurystomus orientalis orientalis.

Occurring over all our hills in the jungle; it is not difficult to find the nesting place but extremely difficult to rob it as it chooses as a rule a hollow at a considerable height up in a large forest tree.

XXXVIII.-Family MEROPIDÆ

509. The Burmese Green Bee-eater. Merops orientalis birmanus.

A common bird in our hills ; the Telegraph lines seem its normal habitat !

510. The Blue-tailed Bee-eater. Merops superciliosus javanicus.

Also fairly common in places and seems to have a preference for river valleys. A breeding colony is a sight worth seeing.

511. The Chestnut-headed Bee-eater. Melittophagus erythrocephalus erythrocephalus. Fairly common throughout our hills, it seems much more solitary in its habits than the other bee-eaters and certainly does not breed in colonies.

512. The Blue-bearded Bee-eater. Bucia athertoni.

Occurs throughout our hills and is particularly common in the Shan Hills at the beginning of the rains which made me consider it was locally migratory. Nest holes I have seen were only just above the ground level and, considering how shy the birds are, sometimes in quite exposed situations-roadside drains and banks. I quite agree with the *Fauna* as to the difficulty of securing the eggs as I have opened a good many nest holes without ever obtaining them.

XXXIX.-Family ALCEDINIDÆ

513. The Indian Pied Kingfisher. Ceryle rudis leucomelanura.

The bird may be found in the foothills and in the Shan Hills up to about 3,000 ft. where the river valleys are wide; one does not come across it frequenting the hill streams proper, it likes 'open' rivers, canals and lakes. The champion 'hoverer' of its tribe and one wishes the brilliant blue kingfisher would copy this habit to the same extent and in the same confiding manner; nests in Burma in winter months, as recorded.

514. The Himalayan Pied Kingfisher. Ceryle lugubris guttulata.

Common in the Chin Hills and recorded from the Kachin Hills. I cannot remember it in the Shan Hills but it probably occurs as it is found in Yunnan; it is curiously shy for a kingfisher and liable to escape notice.

5:5. The Common Indian Kingfisher. Alcedo athis bengalensis.

Common in all our hills.

516. The Malay Blue-eared Kingfisher. Alcedo meningting coltarti.

Recorded as occurring in Burma, but I knew it not in these hills.

517. Blyth's Kingfisher. Alcedo hercules.

Recorded in the Chin Hills according to the Fauna.

518. The Broad-zoned Kingfisher. Alcedo euryzona.

I can record this bird from 40 miles north of Taunggyi in the Shan Hills. Rare and shy, but I once had it perched within a few feet of me, on the banks of a jungle stream far from man's abode.

519. The Indian Three-toed Kingfisher. Ceyx tridactylus tridactylus.

Occurs throughout the Burma Hills. One killed itself against the Civil Hospital Operating Room window at Maymyo, some 40 miles east of Mandalay, in the Shan Hills Nowhere common.

520. The Burmese Stork-billed Kingfisher. Ramphalcyon capensis burmanica.

Inhabits all our hills. I found it nesting in the bank of a perennial stream in the Shan Hills at about 3,000 ft., end of April; 4 eggs fresh, the entrance to the nest was large and the egg chamber only a little way in.

521. The Indian White=breasted Kingfisher. Halcyon smyrnensis fusca.

Common everywhere in the hills and a great lover of a hill roadside bank to nest in. In Burma it is the commonest kingfisher.

522. The Black-capped Kingfisher. Halcyon pileata.

An inhabitant of the eastern hills being often met with in the Shan Hills up to the very eastern extremity. It probably also occurs in the Kachin Hills and, as it is found in Assam, probably also in the Chin Hills though I cannot recall seeing it there. My idea is that it is more numerous inland and up the hill streams in the breeding season. In April I found it quite common on an eastern tributary of the Salween River in the Shan Hills evidently breeding or about to breed. I never took a nest however.

XL.-Family BUCEROTIDÆ

523. The Great Hornbill. Dichoceros bicornis bicornis.

More common in the Chin Hills than the Kachin and Shan Hills. I attributed the death of a tame bird I had, to its being given meat. This bird would have made a fine 'slip' at cricket as it caught anything within reach. I never tried throwing anything but fruit at it and the catch was made with the end of the bill and then tossed up and caught in the back of the throat when it could be swallowed.

524. The large Indian Pied Hornbill. Anthraceros malabaricus malabaricus.

525. The Burmese Pied Hornbill. Anthraceros malabaricus leucogaster.

Both these subspecies inhabit the Burmese Hills probably the latter in the Southern Shan Hills only. I took fresh eggs on the 16th March in Tennasserim. Probably they breed in the hills about the same time. The Pied Hornbill is a very common bird in the Shan Hills, but the nest is difficult to locate.

526. The Malayan Wreathed Hornbill. Rhyticeros undulatus.

A large hornbill which occurs somewhat sparingly in all these Burma Hills.

527. Blyth's Wreathed Hornbill. Rhyticeros subruficollis.

The swish caused by hornbills descending from high up in the air to their nesting tree is a noise worth hearing. I found a nest of this species solely by hearing this noise. Burmese name 'Goryin '.

528. The Rufous-necked Hornbill. Aceros nepalensis.

Recorded in the Fauna as occurring in the Chin and Kachin Hills.

XLI.-Family UPUPIDÆ

529. The Burmese Hoopoe. Upupa epops longirostris.

A familiar and attractive bird in all hill stations as well as the plains. Nests beginning of April, but I have taken eggs in June although I should not say it normally had two broods.

XLII.-Family TROGONIDÆ

530. The Red-headed Trogon. Pyrotrogon erythrochphalus erythrocephalus.

Inhabits all these hills and is not uncommon where there is suitable heavy jungle and often seen when beating for jungle fowl.

531. Robinson's Yellow-breasted Trogon. Pyrotrogon oreskios uniformis.

This bird extends very much further north than Tenasserim. I have myself seen it on the west coast of Burma. Hopwood also records it from Arakan. A friend described this bird to me in the Kachin Country; so it probably spreads up, sparingly, throughout Burma. The upright attitude of this bird when perching is very marked : one has the idea too that this bird is more sluggish in the day-time than the Red-headed Trogon.

XLIII.-Family MICROPIDÆ

532. The Large White-rumped Swift. Micropus pacificus pacificus.

533. The Burmese White-rumped Swift. Micropus pacificus cooki.

The two subspecies *pacificus* and *cooki* occur in our hills, the latter recorded from the Shan Hills where its breeding was the subject of a note in

the *Journal* by Col. Harington (*Journ. B.N.H.S.*, vol xxiii, p. 155). I paid a visit to that nesting site, the Gokteik Gorge, on March, 17, 1924 and there was not a swift of this species there. The roof of the cave was occupied by a small swift probably of the genus, *Collocalia*.

534. The Malay House-Swift. Micropus affinis subfurcatus.

Occupies hills and plains alike all over Burma. Have taken the eggs out of nests in buildings and caves but have never seen a big colony of them. May to July seem the breeding months.

535. The Eastern Palm-Swift. Tachornis batasiensis infumatus.

Chin Hills where it copies the Assam birds and breeds in the thatch of Hilltribe houses. I have also taken its nest under palm leaves. Harington remarks that nearly every Kachin house has a few nests in the eaves. In the ShanHills, as similar thatched buildings do not exist, it breeds in the palm trees.

536. The Brown-throated Spine-tail. Hirundapus giganteus indicus.

I knew this bird in the Andamans, but I have never noted it in our hills. Mackenzie thought he saw a flock in the North Chin Hills and I expect he was correct. The pace of their flight is wonderful.

537. The Himalayan Swiftlet. Collocalia fuciphaga brevirostris.

Presuming my identification is correct, I noted this bird as breeding in many of the caves in limestone rocks in the Shan Hills in March. In the Gokteik Gorge Cave, which forms a natural bridge over a river in the Shan Hills not far from Maymyo and on which a high railway bridge has been constructed, the birds' nests could not be seen as they were in the natural hollows of the cave itself; these hollows are probably big, but the entrance to them from the cave is small and the nesting place must be practically in darkness. I noticed many birds going into the same entrance. There were no broken egg shells upon the ground.

538. Indian Crested Swift. Hemiprocne coronata,

To be seen in all our hills haunting generally the jungle clearings for cultivation where some trees have not been felled but which are dead. These trees or rather the branches of them are used as nesting sites. I have heard them making a call when in flight very similar to the call of the small Woodpecker, *Dryobates*.

XLIV.-Family CAPRIMULGIDÆ

539. The Burmese Long-tailed Nightjar. Caprimulgus macrourus bimaculatus.

This is the commonest Nightjar in the Shan Hills and has also been recorded from the Chin and Kachin Hills. I have heard this species calling quite early in the afternoon.

540. The Japanese Jungle Nightjar. Caprimulgus indicus jotaka.

Two white ground eggs taken for me in the Chin Hills, Mt. Victoria, must have belonged to this bird as Mackenzie took it in the North Chin Hills.

541. Franklin's Nightjar. Caprimulgus monticolus monticolus.

Recorded as occurring throughout Burma in the Fauna, but latter day ornithologists in the country seem to have missed it as neither Harington, Mackenzie or anyone else, that I can find, record it.

542. The Common Indian Nightjar. Caprimulgus asiaticus.

Recorded by Mackenzie in the North Chin Hills, probably in the plains adjoining.

543. The Burmese Great Eared Nightjar. Lyncornis cerviniceps.

Chin Hills, at any rate but if it occurs in the eastern hills, it is rare I should think.

XLV .- Family PODARGIDÆ

544. Hodgson's Frogmouth. Batrachostomus javanensis hodgsoni.

The nests of this bird were taken by Mackenzie in the North Chin Hills. I regret I have never come across it. It appears to miss the eastern hills.

XLVI.-Family TYTONIDÆ

545. The Indian Barn Owl. Tyto alba javanica. Inhabits all these hills.

546. The Grass Owl. Tyto longimembris.

This bird is to be found in suitable places throughout the Shan Hills. It requires open grass spaces. Nests on the ground in the cold weather. The nests I have seen are very scanty grass affairs, in fact, look as if they were simply made of some of the surrounding grass trodden down, with a feather or two included. One nesting place was well hidden by overhanging grass, but one from which I obtained eggs was quite open. I examined the pellets of this bird and found them made up of mice remains, but one contained a skull and beak—the upper mandible of a Quail (Turnix).

In the daytime when disturbed they do not fly far and soon flop down in the grass again, but at night, as may be expected, they are quick, silent hunters. I have seen them behaving as if they were catching insects of some sort like large white bats.

I do not think the bird occurs in the Chin Hills and there is no record of it in the Kachin Hills that I can find.

XLVII.-Family ASIONIDÆ

547. The Bay Owl. Phodilus badius badius. Probably Shan Hills and Eastern Kachin Hills.

548. The Himalayan Wood-Owl. Strix nivicola. Shan Hills.

549. The Himalayan Brown Wood-Owl. Strix indrance newarensis. I should think this is the subspecies of the Shan Hills.

550. The Bengal Brown Fish-Owl. Ketupa zeylonensis leschenaulti.

Recorded from the Chin and may occur in the Kachin and Shan Countries.

551. The Indian Great Horned-Owl. Bubo bubo bengalensis.

552. The Forest Eagle Owl. Huhua nipalensis.

May probably both be obtained in our hills. I have heard the latter in the Chin Hills.

553. The Burmese Collared Scops Owl. Otus bakkamæna lettia.

A common bird in all these hills. In the Shan Hills I notice my nests were generally taken the last week in March. In one case the hollow used was within easy reach, in another an old woodpecker's nest much higher up had been used.

554. The Eastern Spotted Scops Owl. Otus spilocephalus spilocephalus.

Recorded from Kachin Country and Shan Hills.

555. The Burmese Scops Owl. Otus sunia modestus.

Shan Hills, according to the Fauna.

556. The Burmese Spotted Owlet. Athene brama pulchra.

Not nearly so common in the hills as in the plains. So noisy that one would think it was about the most quarrelsome bird in the country.

557. The Burmese Barred Owlet. Glaucidium cuculoides rufescens. Occurs in all these hills.

558. The Jungle Owlet. Glaucidium radiatum. Recorded by Mackenmie in the Chin Hills.

559. The Eastern Collared Pigmy Owlet. Glaucidium brodiei tubiger.

Harington records this little owl as being plentiful in the Kachin Hills and I have seen it in the Shan Hills ; it also probably occurs in the Chin Hills.

560. The Burmese Brown Hawk-Owl. Ninox scutulata burmanica.

Chin, Kachin and Shan Hills : in the latter I often came across this bird when beating patches of jungle for woodcock and their flight is something similar to that bird.

(To be continued.)